

REMARKS

Receipt of the Office Action of February 4, 2008 is gratefully acknowledged.

The drawings filed on September 15, 2004 are objected to because of the German language text. Replacement Sheets for figures 4 and 6 are being submitted herewith to overcome this objection.

As to figures 1 - 5, they are really not prior art illustrations so that the prior art identifier has not been included with these drawing figures.

Claims 62 and 64 are rejected as indefinite under 35 USC 112, second paragraph. In reply these claims have been cancelled.

The examiner then rejects claims 31 - 38, 44, 46, 49, 52, 53, 61 and 63 under 35 USC 102(b) by Kenshi; rejects claims 31 - 37, 47 and 48 under 35 USC 102(b) by Updike et al; rejects claims 39 - 41 and 45 under 35 USC 103(a) over Kenshi in view of Berger; rejects claims 42 and 43 under 35 USC 103(a) over Kenshi in view of McGeorge; rejects claims 50 and 51 under 35 USC 103(a) over kenshi in view of Aspandiar; rejects claims 39 - 41 and 45 under 35 USC 103(a) over Updike et al in view of Berger; rejects claims 42 and 43 under 35 USC 103(a) over Updike et al in view of McGeorge ; and rejects claims 50 and 51 under 35 USC 103(a) over Updike et al in view of Aspandiar et al.

These art rejections have been carefully considered but are respectfully traversed.

The traverse notwithstanding, the claims have been amended to better define the invention over the art of record. New independent claim 65, which is

a combination of claims 31, 47 and 48 has been added, as has new claim 66, which is a combination of claims 32, 47 and 48.

None of the prior art documents cited by the Examiner in the Official Action disclose the subject-matter of the above new independent claims 65, 66. Also, the subject matter of the above new independent claims 65, 66 are clearly distinguished over the prior art documents and are not obvious in view of anyone or any combination of the prior art documents cited by the Examiner.

Kenshi (EP 0469788 A2) relates to a reflow oven and a method to reflow soldering therein. According to one variant thermally critical components are soldered in the reflow oven on top of the PC board when the temperature in the upper part of the fellow chamber of the oven is lower than the lower part of the reflow chamber (see column 3, lines 15-51 of Kenshi). According to a second variant a perforated steel plate serves to control the heat applied to the top side of the PC board in the reflow oven in order to keep the temperature on the upper side of the board with the thermally critical components lower than on the obverse side of the board heated by the lower part of the reflow chamber (see column 3, line 52 to column 4, line 34 of EP 0469788 A2). Further variants of Kenshi relate to metal coverings on PCBs for applying excessive heating to particular sections of the PCBs where such excessive heat is needed (see fig. 7a, 7b, 8a and 8b and the related specifications text of EP 0469788 A2). The cooling that Kenshi describes in column 9, lines 3-15, and that the Examiner cites, takes place outside the reflow oven; the cooling that Kenshi describes in column 12, lines 25-40, relates to cooling the upper part of the reflow chamber of the oven. All the various aspects of Kenshi are different to the subject-matters of the above new independent claims 65, 74 and new claim 68 of our application.

Within the other reference documents cited by the Examiner Updike et al, Aspandiar et al. and Berger only concern wave soldering and related apparatus.

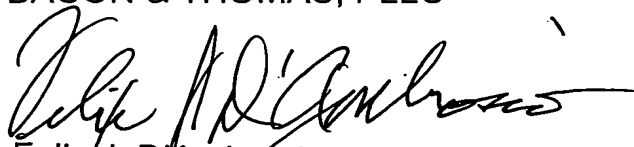
Wave soldering is not generic and has nothing to do with reflow soldering according to the subject-matters of the above new independent claims 65, 66. Also, the wave soldering according to Updike et al, Aspandiar et al and Berger can not, it is respectfully submitted, be combined with the reflow soldering according to Kenshi. The apparatus of wave and reflow soldering are totally different. It is not possible to realize wave soldering in a reflow oven or to realize a reflow oven in a wave soldering apparatus.

The cited prior art document of Joshi relates strictly to particular semiconductor chips with solder balls in a so-called Ball Grid Array arrangement which has nothing to do with our application. Even Joshi in view of Aspandlar et al who also describes BGA chips does only yield to wave soldering of such BOA chips but has nothing to do with the reflow soldering according to the new independent claims 65, 66. McGeorge describes a connecting element to connect and mechanically fix second PCB on a first one. It is clear that McGeorge is not generic and far removed from the present invention.

In view of the foregoing, reconsideration and re-examination are respectfully requested and claims 33 - 37, 41 - 44, 49, 54 - 59, 65 and 66 should now be allowed.

If any additional claim is required, please charge it to deposit Account No. 02-0200.

Respectfully submitted,
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